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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,824	11/23/2005	Tomohiro Inoue	P70965US0	6055

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EXAMINER	
HAN, KWANG S	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
08/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/557,824	INOUE ET AL.	
	Examiner	Art Unit	
	Kwang Han	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/14/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue (JP 2001-332275, as cited in IDS, online translation).

Regarding claim 1, Inoue is directed towards a separator for a fuel battery comprised of the following:

- a through hole (Element 8, Drawing 14),
- gasket formed in grooves in the separator body (Drawing 11) [Abstract],
- gasket formed with rubber [Abstract, 0007],
- gasket is integrally formed in both surfaces of separator body (Drawings 8, 10, 12, 14), and
- a groove width which is wider on one side than the other side (Drawing 14).

Regarding claim 4, Inoue is directed towards a separator for a fuel battery comprised of the following:

- forming made with rubber in a gasket forming groove [Abstract, 0007],
- grooves formed on surfaces of a separator main body [0027] (Drawing 10),
- grooves formed in both surfaces (Drawing 8, 10, 12, 14),
- gasket is formed in separator main body [Abstract], and
- a groove width which is wider on one side than the other side (Drawing 14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Chow et al. (WO 94/09520, as cited in IDS).

Regarding claim 2, the applicant is directed towards the discussion regarding claim 1. Inoue is silent towards the use of an inclined shape for the groove side surfaces.

Chow et al. teaches the use of a separator (44, 50) for a fuel cell with an inclined shape for the groove side surfaces (Figure 5) for the benefit of accommodating preformed gaskets to be disposed (Page 7, Lines 14-18).

It would have been obvious to one of ordinary skill in the art at time of the invention to apply Chow's inclined shapes gasket channels in Inoue's fuel cell separator for the benefit of minimizing changes in position or separation of the gasket when sealing the fuel cell.

Regarding claim 5, the applicant is directed towards the discussion regarding claim 4. Inoue is silent towards the use of an inclined shape for the groove side surfaces.

Chow et al. teaches the use of a separator (44, 50) for a fuel cell with an inclined shape for the groove side surfaces (Figure 5) for the benefit of accommodating preformed gaskets to be disposed (Page 7, Lines 14-18).

It would have been obvious to one of ordinary skill in the art at time of the invention to apply Chow's inclined shapes gasket channels in Inoue's fuel cell separator for the benefit of minimizing changes in position or separation of the gasket when sealing the fuel cell.

8. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Ishigaki et al. (JP 2000-356267, as cited in IDS, online translation).

Regarding claim 3, the applicant is directed towards the discussion concerning claim 1. Inoue teaches a seal with a gasket but is silent as to a curvature provided in the corner positions of the groove bottom surfaces.

Inoue and Ishigaki et al. are analogous art because both deal with sealing of components performed by a gasket and a matching groove.

Ishigaki et al. teaches the use of a fluid seal with a gasket (1) and a curvature provided in a corner of the groove bottom position [Abstract, 0001] (Drawing 1) for the benefit of providing an excellent fluid sealing performance at low loads to lengthen the service life of a device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Ishigaki's fluid seal with a curved bottom position in the groove in Inoue's separator for the benefit of forming an excellent seal with the gasket at low loads to lengthen the service life of the fuel cell.

Regarding claim 6, the applicant is directed towards the discussion concerning claim 4. Inoue teaches a seal with a gasket but is silent as to a curvature provided in the corner positions of the groove bottom surfaces.

Ishigaki et al. teaches the use of a fluid seal with a gasket (1) and a curvature provided in a corner of the groove bottom position [Abstract, 0001] (Drawing 1) for the benefit of providing an excellent fluid sealing performance at low loads to lengthen the service life of a device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Ishigaki's fluid seal with a curved bottom position in the groove in Inoue's separator for the benefit of forming an excellent seal with the gasket at low loads to lengthen the service life of the fuel cell.

Contact/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang Han whose telephone number is (571) 270-5264. The examiner can normally be reached on Monday through Friday 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy Tsang-Foster can be reached on (571) 272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./
Examiner, Art Unit 1795

/Susy Tsang-Foster/
Supervisory Patent Examiner, Art Unit 1795